IN THE CLAIMS

1. (*Previously Presented*) A sheet handling apparatus comprising:

a receiving section that receives recording sheets transported from an image forming apparatus having an image forming section for forming an image on a sheet;

a plurality of inserter trays for having insert sheets stacked thereon;

a plurality of feeders that feed the insert sheets stacked on respective inserter trays;

a sheet feeding controller that controls feeding of the insert sheets stacked on the plurality of inserter trays so that the insert sheets are inserted between the recording sheets transported from the image forming apparatus;

a transporting device that transports recording sheets received from the image forming apparatus and insert sheets fed from at least one of said plurality of inserter trays to a discharge tray; and

a sheet feeding mode setting device that sets one of a plurality of sheet feeding modes corresponding respectively to a plurality of stacking manners,

wherein said sheet feeding modes include at least a first sheet feeding mode in which said sheet feeding controller controls said feeders to sequentially feed the insert sheets from a different one of said inserter trays every time an insert sheet is fed, and a second feeding mode in which said sheet feeding controller controls said feeders to sequentially feed the insert sheets from only one of the inserter trays unless the one inserter tray is empty.

2. (*Original*) A sheet handling apparatus according to claim 1, wherein said sheet feeding controller controls feeding of the insert sheets stacked on said plurality of inserter trays in accordance with the sheet feeding mode set by said sheet feeding mode setting device.

3. (*Original*) A sheet handling apparatus according to claim 1, wherein said plurality of sheet feeding modes include at least a first sheet feeding mode in which a same type of insert sheets are stacked on each of said plurality of inserter trays, and a second sheet feeding mode in which plural types of said insert sheets are stacked together on at least one of said plurality of inserter trays.

4. (*Previously Presented*) A sheet handling apparatus according to claim 3, wherein in said first sheet feeding mode, said sheet feeding controller sequentially feeds the insert sheets sheet by sheet from one of said plurality of inserter trays, and then changes to another of said inserter trays.

5. (*Original*) A sheet handling apparatus according to claim 3, wherein in said second sheet feeding mode, said sheet feeding controller sequentially feeds the plural types of said insert sheets stacked together on said at least one of the inserter trays sheet by sheet starting from a top page sheet of the insert sheets.

6. (*Original*) A sheet handling apparatus according to claim 3, comprising an insert sheet number determining device that determines a total number of the insert sheets to be inserted between the recording sheets, a sheet stacking detector that detects presence or absence of the insert sheets stacked on each of said plurality of inserter trays, a comparator operable in said first sheet feeding mode to compare the total number of the insert sheets determined by said insert sheet number determining device with a total number of inserter trays on which presence of the insert sheets stacked thereon is detected by said sheet stacking detector, and a warning device that gives a predetermined warning if a result of the comparison by said comparator shows that the total number of the insert sheets does not coincide with the total number of the inserter trays.

7. (*Original*) A sheet handling apparatus according to claim 6, wherein said insert sheet number determining device determines the total number of the insert sheets through manual input by a user.

8. (*Original*) A sheet handling apparatus according to claim 6, wherein said image forming apparatus comprises an original reading device that reads images on a set of originals for forming images on the recording sheets, and a color original counter that recognizes color originals from said set of originals based on the images read by said original reading device and counts a number of the recognized color originals; and wherein said insert sheet number determining device determines the number of color originals counted by said color original counter as the total number of the insert sheets to be inserted between the recording sheets.

9. (*Original*) A sheet handling apparatus according to claim 8, comprising an image formation inhibiting device that inhibits image formation by said image forming section while said counting of color originals is being carried out by said color original counter.

10. (*Original*) A sheet handling apparatus according to claim 1, comprising a predetermined

information reading device that reads predetermined information indicative of said sheet feeding mode recorded on a predetermined one of the insert sheets in advance, and said sheet feeding mode setting device sets said sheet feeding mode based on said predetermined information read by said predetermined information reading device.

11. (*Original*) A sheet handling apparatus according to claim 10, wherein said predetermined information is recorded at a location outside an image formed region of said predetermined one of the insert sheets.

12. (*Original*) A sheet handling apparatus according to claim 10, wherein said predetermined information is recorded on a leading edge portion of said predetermined one of the insert sheets.

13. (*Original*) A sheet handling apparatus according to claim 10, wherein said predetermined one of the insert sheets is a top one of the insert sheets stacked on each of said plurality of inserter trays.

14. (*Original*) A sheet handling apparatus according to claim 10, wherein said predetermined information reading device is brought into a position close to the insert sheets to read said predetermined information.

15. (*Original*) A sheet handling apparatus according to claim 10, wherein said sheet feeding controller comprises a driver for carrying out a sheet feeding operation for feeding the insert sheets stacked on said plurality of inserter trays, said driver being disposed to drive said predetermined information reading device.

16. (*Original*) A sheet handling apparatus according to claim 15, wherein said reading by said predetermined information reading device is carried out in synchronism with the feeding of the insert sheets by said sheet feeding controller.

17. (*Original*) A sheet handling apparatus according to claim 10, wherein said predetermined information reading device comprises at least one light reflection type sensor, and said predetermined information comprises a mark with a color being different in brightness from color of said predetermined one of the insert sheets.

18. (*Original*) A sheet handling apparatus according to claim 10, comprising an error display device that displays failure to read said predetermined information by said predetermined information reading device.

19. (*Original*) A sheet handling apparatus according to claim 10, comprising a re-stacking detector that detects re-stacking of the insert sheets on said plurality of inserter trays, and said sheet feeding mode setting device is responsive to failure to read said predetermined information by said predetermined information reading device, for suspending setting of the sheet feeding mode until the re-stacking of the insert sheets is detected.

20. (*Original*) A sheet handling apparatus according to claim 10, wherein said sheet feeding mode setting device is responsive to failure to read said predetermined information by said predetermined information reading device, for setting the sheet feeding mode through manual setting by a user.

21. (*Previously Presented*) A sheet handling apparatus according to claim 10, comprising a recording sheet feeding inhibiting device responsive to failure to set the sheet feeding mode based on said predetermined information read by said predetermined information reading device, for inhibiting feeding of the recording sheets.

22. (*Original*) A sheet handling apparatus according to claim 1, wherein said sheet feeding mode setting device sets the sheet feeding mode through manual setting by a user.

23. (*Original*) A sheet handling apparatus according to claim 1, wherein the insert sheets stacked on the plurality of inserter trays are fed so as to bypass said image forming section.

24-46. (*Canceled*)

47. (*Previously Presented*) A machine readable storage medium storing a program for controlling a sheet handling apparatus comprising a receiving section that receives recording sheets transported from an image forming apparatus having an image forming section for forming an image on a sheet, a plurality of inserter trays for stacking insert sheets thereon, and a transporting device that transports recording sheets received from the image forming apparatus and insert sheets fed from at least one of the plurality of inserter trays to a discharge tray, the

program including codes for:

controlling feeding of the insert sheets stacked on the respective inserter trays so that the insert sheet is inserted between the recording sheets transported from said image forming apparatus; and

setting one of a plurality of sheet feeding modes corresponding respectively to a plurality of stacking manners,

wherein said feeding modes include at least a first sheet feeding mode in which the insert sheets are sequentially fed from a different inserter tray every time an insert sheet is fed, and a second feeding mode in which the insert sheets are sequentially fed from only one of the inserter trays unless the one inserter tray is empty.

48. (*Previously Presented*) A sheet handling apparatus comprising:

a receiving section that receives recording sheets transported from an image forming apparatus having an image forming section for forming an image on a sheet;

at least one inserter tray for having insert sheets stacked thereon, the insert sheets being insertable between the recording sheets transported from the image forming apparatus;

a sheet feeder that feeds the insert sheets stacked on said inserter tray;

a sheet feeding controller that controls feeding of the insert sheets stacked on said inserter tray so that the insert sheets are inserted between the recording sheets transported from the image forming apparatus;

a transporting device that transports recording sheets received from the image forming apparatus and insert sheets fed from said inserter tray to a discharge tray; and

a stacking manner input terminal that selects a desired stacking manner from at least two kinds of stacking manners, for stacking the insert sheets on said inserter tray,

wherein said sheet feeding controller is operable when a predetermined stacking manner is selected by said stacking manner input terminal, for controlling said sheet feeder to feed the insert sheets from said inserter tray without interrupting a job being executed when insert sheets are re-stacked on said inserter tray after exhaustion of all the insert sheets stacked on said inserter tray.

49. (*Original*) A sheet handling apparatus according to claim 48, wherein said at least two kinds of stacking manners include a first stacking manner in which a single type of insert sheets are stacked on said inserter tray, and a second stacking manner in which plural types of insert sheets are stacked on said inserter tray, and wherein said controller is responsive to selection of

said second stacking manner by the stacking manner input terminal, for controlling said sheet feeder to feed the insert sheets from said inserter tray without interrupting the job being executed if insert sheets are re-stacked on said inserter tray after exhaustion of all the insert sheets stacked on said inserter tray.

50. (*Currently Amended*) A sheet handling apparatus according to claim 48, further comprising a reading device that reads images on ~~*Originals*~~ originals, an image forming device provided in said image forming section, for forming images on the recording sheets based on the images read by said image reading device, a post processing device comprising said inserter tray, and said sheet feeder, said post processing device carrying out a post process of inserting the insert sheets which are fed so as to bypass said image forming device, between the recording sheets having the images formed thereon by said image forming device, and an insert information input terminal that inputs at least one inserting position of the recording sheets having the images formed thereon by said image forming device where the insert sheets are to be inserted, said inserter tray comprising a plurality of inserter trays, and wherein said controller controls an order of said plurality of inserter trays in which the insert sheets are fed from said plurality of inserter trays by said sheet feeder, based on information input from said stacking manner input terminal.

51. (*Original*) A sheet handling apparatus according to claim 48, wherein said inserter tray comprises a plurality of inserter trays, the image forming apparatus further comprising a plurality of insert sheet detectors provided in a fashion corresponding respectively to said plurality of inserter trays, for detecting presence or absence of at least one insert sheet on said inserter trays, and an insert mode selector that selects an insert mode for inserting the insert sheets between the recording sheets, and wherein said controller is responsive to selection of said insert mode by said insert mode selector, for controlling said image forming device to start an image forming operation if at least one insert sheet is detected by any of said plurality of insert sheet detectors.

52. (*Original*) A sheet handling apparatus according to claim 51, wherein said controller controls said insert sheet detectors to determine presence or absence of insert sheets on said plurality of inserter trays in order from upper ones to lower ones in a vertical direction.

53. (*Original*) A sheet handling apparatus according to claim 51, wherein said controller controls said insert sheet detectors to determine presence or absence of insert sheets on said plurality of

inserter trays in order from lower ones to upper ones in a vertical direction.

54. (*Original*) A sheet handling apparatus according to claim 48, wherein said at least two kinds of stacking manners include a first stacking manner in which a single type of insert sheets are stacked on said inserter tray, and a second stacking manner in which plural types of insert sheets are stacked on said inserter tray, said inserter tray comprising a plurality of inserter trays, the image forming apparatus further comprising a plurality of insert sheet detectors provided in a fashion corresponding respectively to said plurality of inserter trays, for detecting presence or absence of at least one insert sheet on said inserter trays, and an insert mode selector that selects an insert mode for inserting the insert sheets between the recording sheets, and wherein said controller is responsive to selection of said insert mode by said insert mode selector and selection of said second stacking manner by said stacking manner input terminal, for controlling said image forming device to start an image forming operation, if at least one insert sheet is detected by any of said plurality of insert sheet detectors.

55. (*Original*) A sheet handling apparatus according to claim 48, further comprising an insert sheet detector that detects at least one insert sheet stacked on said inserter tray, and wherein said at least two kinds of stacking manners include a first stacking manner in which a single type of insert sheets are stacked on said inserter tray, and a second stacking manner in which plural types of insert sheets are stacked on said inserter tray, said inserter tray comprising one or a plurality of inserter trays, and wherein said controller is responsive to exhaustion of all the insert sheets stacked on said one or said plurality of inserter trays while said second stacking manner is selected by said stacking manner input terminal during outputting of said job and detection of re-stacking of at least one insert sheet on said one or said plurality of inserter trays by said insert sheet detector, for controlling said sheet feeder to start feeding the at least one insert sheet from said one or said plurality of inserter trays upon lapse of a predetermined period of time after said detection of re-stacking.

56. (*Original*) A sheet handling apparatus according to claim 48, further comprising an insert sheet detector that detects at least one insert sheet stacked on said inserter tray, and a job restart input terminal for instructing restart of a job, said at least two kinds of stacking manners including a first stacking manner in which a single type of insert sheets are stacked on said inserter tray, and a second stacking manner in which plural types of insert sheets are stacked on said inserter tray, said inserter tray comprising one or a plurality of inserter trays, and wherein

said controller is responsive to exhaustion of all the insert sheets stacked on said one or said plurality of inserter trays while said second stacking manner is selected by said stacking manner input terminal during outputting of said job and detection of re-stacking of at least one insert sheet on said one or said plurality of inserter trays by said insert sheet detector, for controlling said sheet feeder to feed the at least one insert sheet from said one or said plurality of inserter trays if the restart of said job is instructed by said job restart input terminal after the detection of re-stacking of the at least one insert sheet by said insert sheet detector.

57. (*Previously Presented*) A sheet handling apparatus comprising:

a receiving section that receives recording sheets transported from an image forming apparatus having an image forming section for forming an image on a sheet;

at least one inserter tray for stacking thereon insert sheets to be inserted between recording sheets having images formed thereon in the image forming apparatus;

a sheet feeder for feeding the insert sheets stacked on the inserter tray;

a sheet feeding controller that controls feeding of the insert sheets stacked on said inserter tray so that the insert sheets are inserted between the recording sheets transported from the image forming apparatus;

a transporting device that transports recording sheets received from the image forming apparatus and insert sheets fed from said inserter tray to a discharge tray,

wherein while a predetermined stacking manner is selected from at least two kinds of stacking manners for stacking insert sheets on said inserter tray, said sheet feeder is controlled to feed insert sheets from said inserter tray without interrupting a job being executed if the insert sheets stacked on said inserter tray are exhausted and thereafter insert sheets are re-stacked on said inserter tray.

58. (*Original*) A sheet handling apparatus according to claim 57, wherein said at least two kinds of stacking manners include a first stacking manner in which a single type of insert sheets are stacked on said inserter tray, and a second stacking manner in which plural types of insert sheets are stacked on said inserter tray, and wherein when said second stacking manner is selected, said sheet feeder is controlled to feed the insert sheets from said inserter trays without stopping the job being executed if the insert sheets stacked on said inserter tray are exhausted and thereafter insert sheets are re-stacked on said inserter tray.

59. (*Currently Amended*) A sheet handling apparatus according to claim 57, further comprising

a ~~sheet handling~~ post processing device comprising said inserter tray, and said sheet feeder, said post processing device carrying out a post process of inserting the insert sheets which are fed so as to bypass said main body of said image forming apparatus, between the recording sheets having the images formed thereon in said main body of said image forming apparatus, said inserter tray comprising a plurality of inserter trays, and wherein an order of said plurality of inserter trays in which the insert sheets are fed from said plurality of inserter trays by said sheet feeder is controlled based on input information on said stacking manner.

60. (*Original*) A sheet handling apparatus according to any one of claim 57, wherein said inserter tray comprises a plurality of inserter trays, the apparatus further comprising a plurality of insert sheet detectors provided in a fashion corresponding respectively to said plurality of inserter trays, for detecting presence or absence of at least one insert sheet on said inserter trays, and wherein when an insert mode for inserting the insert sheets between the recording sheets is selected, an image forming operation is started in said main body of said image forming apparatus if at least one insert sheet is detected by any of said plurality of insert sheet detectors.

61. (*Original*) A sheet handling apparatus according to claim 60, wherein said insert sheet detectors are controlled to determine presence or absence of insert sheets on said plurality of inserter trays in order from upper ones to lower ones in a vertical direction.

62. (*Original*) A sheet handling apparatus according to claim 60, wherein said insert sheet detectors are controlled to determine presence or absence of insert sheets on said plurality of inserter trays in order from lower ones to upper ones in a vertical direction.

63. (*Original*) A sheet handling apparatus according to claim 57, wherein said at least two kinds of stacking manners include a first stacking manner in which a single type of insert sheets are stacked on said inserter tray, and a second stacking manner in which plural types of insert sheets are stacked on said inserter tray, said inserter tray comprising a plurality of inserter trays, the image forming apparatus further comprising a plurality of insert sheet detectors provided in a fashion corresponding respectively to said plurality of inserter trays, for detecting presence or absence of at least one insert sheet on said inserter trays, and wherein when an insert mode for inserting the insert sheets between the recording sheets is selected and said second stacking manner is selected, an image forming operation is started in said main body of said image

forming apparatus if at least one insert sheet is detected by any of said plurality of insert sheet detectors.

64. (*Original*) A sheet handling apparatus according to claim 57, further comprising a plurality of insert sheet detectors provided in a fashion corresponding respectively to said plurality of inserter trays, for detecting presence or absence of at least one insert sheet on said inserter trays, said at least two kinds of stacking manners including a first stacking manner in which a single type of insert sheets are stacked on said inserter tray, and a second stacking manner in which plural types of insert sheets are stacked on said inserter tray, said inserter tray comprising one or a plurality of inserter trays, and wherein when all the insert sheets stacked on said one or said plurality of inserter trays are exhausted while said second stacking manner is selected during outputting of said job and thereafter re-stacking of at least one insert sheet on said one or said plurality of inserter trays is detected by said insert sheet detector, said sheet feeder is controlled to start feeding the at least one insert sheet from said one or said plurality of inserter trays upon lapse of a predetermined period of time after the detection of re-stacking.

65. (*Original*) A sheet handling apparatus according to claim 57, further comprising a plurality of insert sheet detectors provided in a fashion corresponding respectively to said plurality of inserter trays, for detecting presence or absence of at least one insert sheet on said inserter trays, said at least two kinds of stacking manners including a first stacking manner in which a single type of insert sheets are stacked on said inserter tray, and a second stacking manner in which plural types of insert sheets are stacked on said inserter tray, said inserter tray comprising one or a plurality of inserter trays, and wherein when all the insert sheets stacked on said one or said plurality of inserter trays are exhausted while said second stacking manner is selected during outputting of said job and thereafter re-stacking of at least one insert sheet on said one or said plurality of inserter trays is detected by said insert sheet detector, said sheet feeder is controlled to start feeding the at least one insert sheet from said one or said plurality of inserter trays if restart of said job is instructed after the detection of re-stacking of the at least one insert sheet by said insert sheet detector.

66-74. (*Canceled*)

75. (*Previously Presented*) A machine readable storage medium storing a program for controlling insert of insert sheets in a sheet handling apparatus comprising a receiving section

that receives recording sheets transported from an image forming apparatus having an image forming section for forming an image on a sheet, at least one inserter tray for having the insert sheets stacked thereon, the insert sheets being insertable between the recording sheets transported from the image forming apparatus, a sheet feeder that feeds the insert sheets stacked on the inserter tray, and a transporting device that transports recording sheets received from the image forming apparatus and insert sheets fed from the inserter tray to a discharge tray, the program including codes for:

selecting a desired stacking manner from at least two kinds of stacking manners, for stacking the insert sheets on the inserter tray;

controlling the feeding of the insert sheets stacked on the inserter tray so that the insert sheets are inserted between the recording sheets transported from the image forming apparatus; and

controlling the sheet feeder to feed the insert sheets from the inserter tray without interrupting a job being executed when insert sheets are re-stacked on the inserter tray after exhaustion of all the insert sheets stacked on the inserter tray while a predetermined stacking manner is selected by said stacking manner selecting code.

76. (*Previously Presented*) A sheet handling apparatus comprising:

a receiving section that receives recording sheets transported from an image forming apparatus having an image forming section for forming an image on a sheet;

a plurality of inserter trays that hold insert sheets;

a plurality of feeders that feed the insert sheets stacked on said inserter trays respectively;

a sheet feeding controller that controls feeding of the insert sheets stacked on said plurality of inserter trays so that the insert sheet is inserted between the recording sheets transported from the image forming apparatus;

a transporting device that transports recording sheets received from the image forming apparatus and insert sheets fed from at least one of said plurality of inserter trays to a discharge tray; and

an instruction inputting terminal that inputs an instruction selecting one of a plurality of sheet feeding modes including a first mode for plural types of insert sheets stacked on said inserter trays respectively and a second mode for plural types of insert sheets stacked on at least one of said inserter trays,

wherein said sheet feeding controller controls said feeders to sequentially feed the insert

sheets from a different one of said inserter trays every time an insert sheet is fed, and controls said feeders to sequentially feed the insert sheets from only one of said inserter trays unless the one inserter tray is empty.

77. (*Canceled*)

78. (*Previously Presented*) A machine readable storage medium storing a program for controlling a sheet handling apparatus including a receiving section that receives recording sheets transported from an image forming apparatus having an image forming section for forming an image on a sheet, a plurality of inserter trays that hold insert sheets, a plurality of feeders that feed the insert sheets stacked on the inserter trays respectively, and a transporting device that transports recording sheets received from the image forming apparatus and insert sheets fed from at least one of the plurality of inserter trays to a discharge tray, the program including codes for:

inputting an instruction selecting one of a plurality of sheet feeding modes including a first mode for plural types of insert sheets stacked on said inserter trays respectively and a second mode for plural types of insert sheets stacked on at least one of the inserter trays;

controlling the feeding of the insert sheets stacked on the plurality of inserter trays so that the insert sheet is inserted between the recording sheets transported from the image forming apparatus; and

controlling the feeders to sequentially feed the insert sheets from a different one of the inserter trays every time an insert sheet is fed, and to sequentially feed the insert sheets from only one of the inserter trays unless the one inserter tray is empty.